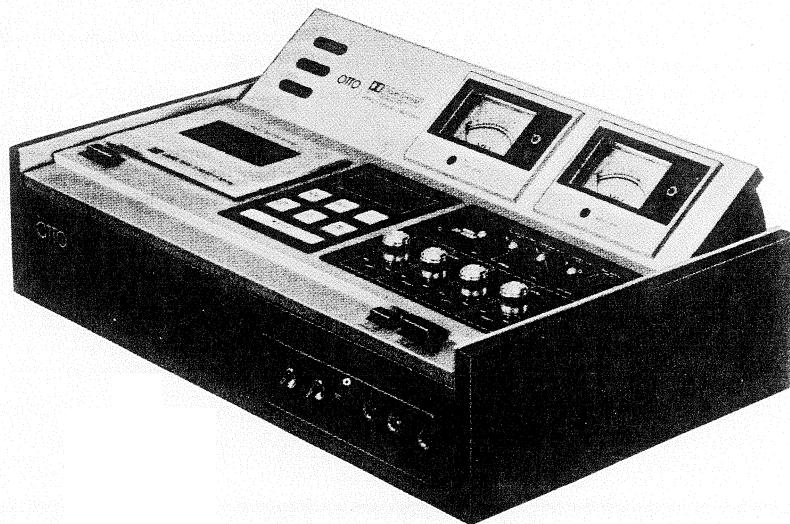




**SANYO**

**SANYO**  
**CASSETTE TAPE DECK**  
**RD4600<sub>UM</sub>**  
**SERVICE MANUAL**



## SPECIFICATIONS

Recording System:	AC bias 4 track 2 channel
Erasing system:	AC erase
Tape speed:	1-7/8 IPS. (4.75 cm/sec.)
Recording time:	60 min (C-60)
Rew & F. Fwd time:	1 min. 30 sec. (C-60)
Frequency response:	30 ~ 13,000 Hz 30 ~ 16,000 Hz (CrO <sub>2</sub> tape)
Signal to Noise ratio:	Dolby OFF: 50dB ON: 58 dB
Wow & Flutter:	0.07% WRMS
Bias oscillator frequency:	90 ~ 103 kHz
Input terminal:	MIC: -70 dB 200 ~ 10 k ohm AUX IN: -20 dB 100K ohm DIN INPUT: -55 dB 10K ohm
Output terminal:	LINE OUT: 0.775V 2K ohm DIN OUTPUT: 0.775V 2K ohm HEADPHONE: 30mV 8 ohm
Power consumption:	20 W
Power source:	AC 110 125, 220V 50/60 Hz
Dimension (approx.):	466 x 284 x 104 mm
Weight (approx.):	7.5 kg

## DISASSEMBLY INSTRUCTION

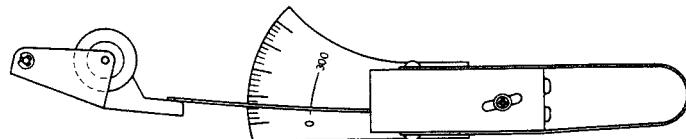
1. Remove the AC power supply cord from the unit.
2. Remove the Dolby level control knobs on the front of the unit.
3. Put the unit front side down on a soft sheet.
4. Remove two washers and legs each at the front on the cabinet bottom.
5. Turn over unit and take away the chassis from the cabinet.
6. Remove the seven screws (Pan Hd. Tapping 3 x 8 4, Pan Hd. 3 x 35 1, Pan Hd. 3 x 30 2) fixing deck panel to chassis.
7. Remove four level control knobs from shafts.
8. Pull out a shaft from hinge for meter panel and operation panel.

NOTE:  
Should not lose two spring coils for meter deck panel.

9. To remove the meter deck panel from operation panel, pull out a pin fixing damper of panel-up mechanism to chassis, and remove the two jumper lead's plugs which connect deck panel with chassis.

## PINCH ROLLER ADJUSTMENT

1. Set the unit into the PLAY mode.
2. Apply a tension gauge to the pinch roller. Read the gauge at the precise moment when the pinch roller separates from the capstan.
3. If the gauge reading falls more than 100 gr, no adjustment is necessary. If otherwise, make adjustment by changing the force of the spring coil. (See exploded view No. 17)

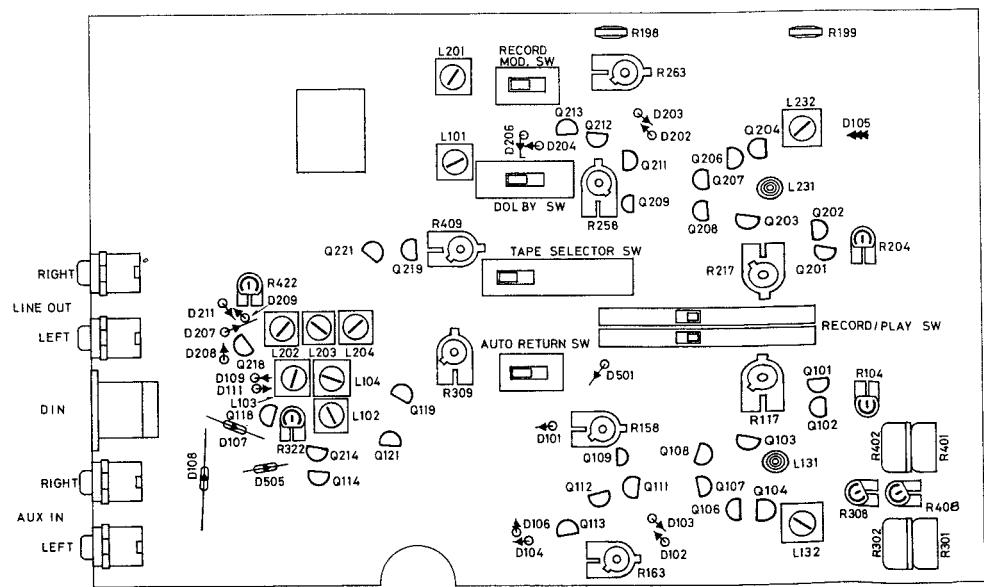
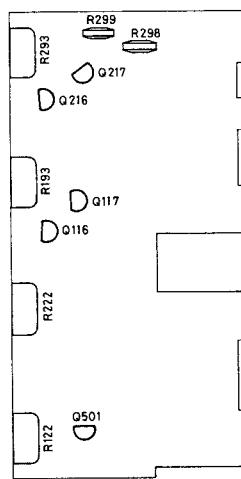
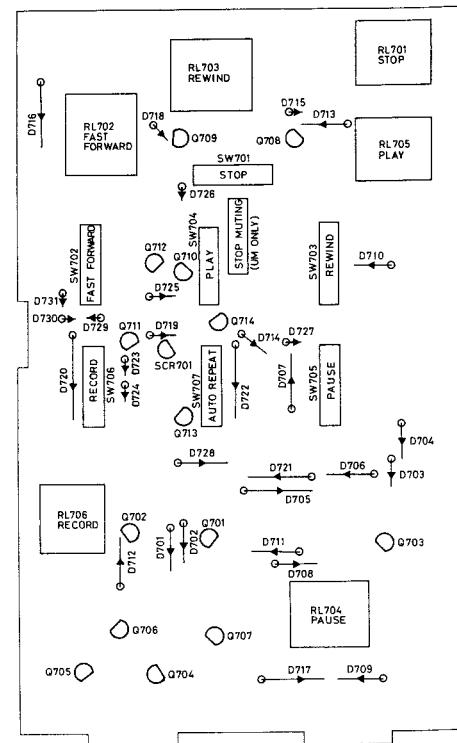
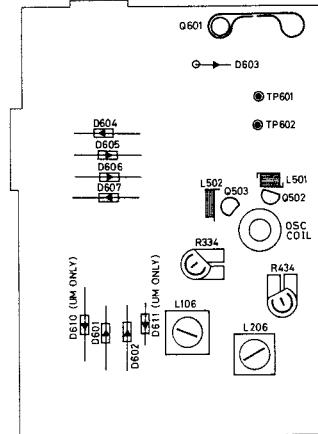


## TORQUE ADJUSTMENT

1. Set the unit into the PLAY, FAST FORWARD or REWIND mode.
2. Measure the each torque with a torque gauge. They should be as following:
 

PLAY	30 - 50 gr/cm
FAST FORWARD	more than 90 gr/cm
REWIND	more than 90 gr/cm
3. If the each torque fails to reach the standard value. Clean the drive belt, flywheel, motor pulley, take-up reel, take-up pulley, idler and rewind roller with a cotton swab soaked in alcohol.

## PARTS LOCATION -

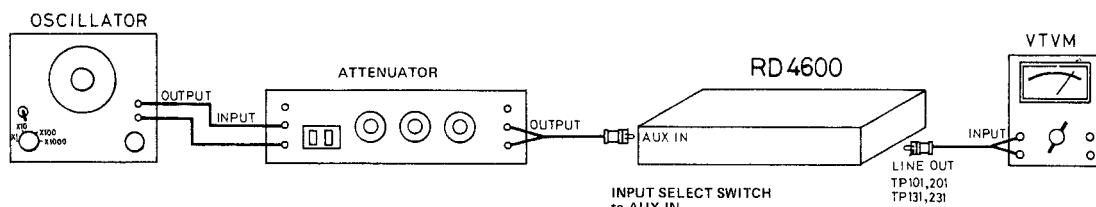


## ADJUSTMENT

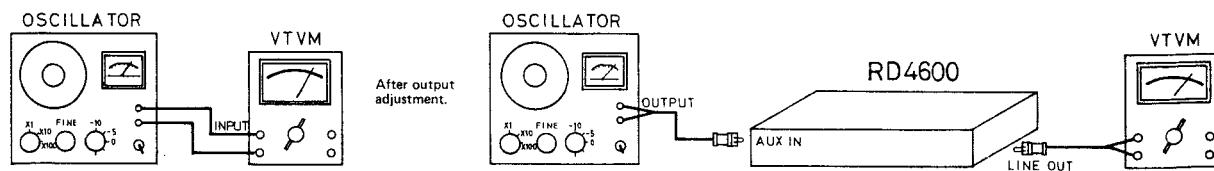
	R/P	LINE/MIC	SWITCH POSITION				VOLUME		
			ST LH CrO <sub>2</sub>	DOLBY ON/OFF	AUTO RETURN	400Hz OSC	OUTPUT LEVEL	INPUT LEVEL	DOLBY LEVEL
Head azimuth	P	—	ST	OFF	—	OFF	Adjust	Max.	Center
Wow & flutter	P	—	ST	OFF	—	OFF	Adjust	Max.	Center
Playback gain	P	—	ST	OFF	—	OFF	Max.	Max.	Center
Playback frequency response	P	—	ST	OFF	—	OFF	Adjust	Max.	Center
Bias trap	① R	MIC	ST	OFF	—	OFF	Max.	Max.	Center
	② R	MIC	ST	OFF	—	OFF	Max.	Max.	Center
Bias current	R	MIC	ST	OFF	—	OFF	Max.	Max.	Center
19kHz trap	R	MIC	ST	OFF	—	OFF	Max.	Max.	Center
Dolby	① R	LINE	ST	OFF	—	OFF	Max.	Max.	Center
	② R	LINE	ST	OFF	—	OFF	Max.	Max.	Center
	③ R	LINE	ST	ON	—	OFF	Max.	Max.	Center
	④ R	LINE	ST	ON	—	OFF	Max.	Max.	Center
	⑤ R	LINE	ST	ON/OFF	—	OFF	Max.	Max.	Center
Recording	① R	LINE	ST	OFF	—	OFF	Max.	Max.	Center
	② R	LINE	ST	OFF	—	OFF	Max.	Max.	Center
Current	③ P	LINE	ST	OFF	—	OFF	Max.	Max.	Center
	④ R	LINE	CrO <sub>2</sub>	OFF	—	OFF	Max.	Max.	Center
	⑤ P	LINE	CrO <sub>2</sub>	OFF	—	OFF	Max.	Max.	Center
400Hz OSC	R	LINE	ST	OFF	—	ON	Max.	Adjust	Center
Meter	① R	LINE	ST	OFF	—	OFF	Max.	Adjust	Center
	② R	LINE	ST	OFF	—	OFF	Max.	At position ①	Center
Peak level	① R	LINE	ST	OFF	—	OFF	Max.	Max.	Center
	② R	LINE	ST	OFF	—	OFF	Max.	Max.	Center
	③ R	LINE	ST	OFF	—	OFF	Max.	Max.	Center

## CONNECTIONS

There is no level meter for the CR oscillator but the attenuator is connected.



The CR oscillator is hooked to the level meter (VTVM) but the attenuator is not used.

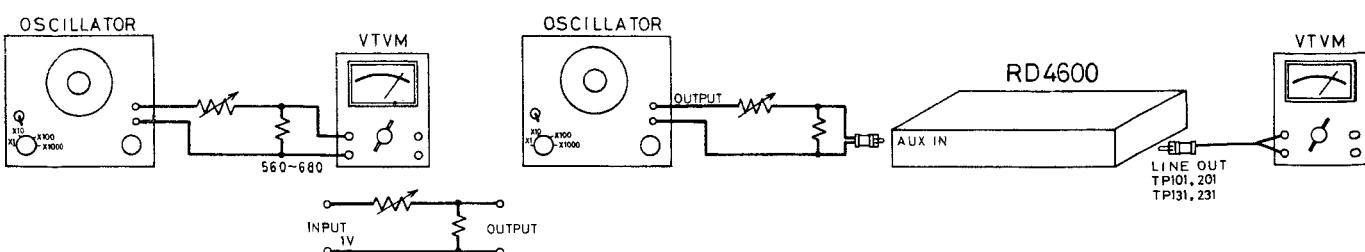


Turn both the FINE and OUTPUT knobs while watching VTVM to adjust the output to 0 dB=1V or 0 dBm=0.775V.

INPUT			OUTPUT		ADJUSTMENT		REMARK
Frequ- ency(Hz)	INPUT Terminal	INPUT Level	OUTPUT Terminal	OUTPUT Level (VTVM)	Left Channel	Right Channel	
		Test tape	LINE OUT	0.1 ~ 1V			10kHz recorded test tape.
		Test tape	LINE OUT	0.1 ~ 1V			3kHz recorded test tape.
400		400Hz Dolby test tape	TP-131 231	580mV	SVR R117	SVR R217	400Hz Dolby test tape. Adjust SVRs to obtain output of 580mV.
		Test tape	LINE OUT	0.1 ~ 1V	SVR R104	SVR R204	Playback 1kHz & 10kHz using test tape. Adjust SVRs R104 & R204 for standard frequency characteristics.
		Non input power	LINE OUT	Hum + noise + bias leakage = less than 6mV	L101	L201	Adjust L101 & L201 to obtain output of min.
		Non input power	PA		L106	L206	Adjust L106 & L206 to obtain output of min (less than 200mV).
		Non input power	TP-101 201	1.2mV	SVR R334	SVR R434	Adjust SVRs to obtain output of standard output.
19K	MIC		LINE OUT		L132	L133	Adjust L132 & L133 to obtain output of min.
400	AUX IN		TP-131 231	580mV	Input level VR	Input level VR	Adjust input level VRs to obtain output of 580mV.
5K	AUX IN	Input ① - 30dB	TP-131 231	18mV			Adjust input power to input ① -30dB.
5K	AUX IN	Input ① - 30dB	TP-131 231	58mV	SVR R163	SVR R263	Turn SVR R158 & R258 to obtain output of max. Adjust SVR R163 & R263 to obtain output of standard output.
5K	AUX IN	Input ① - 30dB	TP-131 231	46mV	SVR R158	SVR R258	Adjust SVR R158 & R258 to obtain output of standard output.
5K	AUX IN	Input ① - 30dB	TP-131 231				Turn ON & OFF Dolby switch. Confirm difference in output is larger than 8dB. If not, re-adjust.
400	AUX IN	89mV ± 12.6mV	TP-131 231	580mV	Input level VR	Input level VR	Adjust input level VRs to obtain output of standard output.
400	AUX IN	Same as input ①	TP-131 231	580mV	SVR R309	SVR R409	Playback recorded tape. Adjust SVRs R309 & R409 to make output levels identical. Use BASF C=60 tape.
400	AUX IN	Playback ②	TP-131 231	580mV			
400	AUX IN	Same as input ①	TP-131 231	580mV	SVR R308	SVR R408	Playback recorded tape. Adjust SVRs R308 & R408 to make output levels identical. Use Chrome C=60 tape.
400	AUX IN	Playback ④	TP-131 231	580mV			
			LINE OUT	0.775V	Input level VR	Input level VR	Adjust input level VRs to obtain output of 0.775V. OSC frequency 400 ± 30dB.
400	AUX IN	100mV ± 18mV	TP-131 231	460mV	Input level VR	Input level VR	Adjust input level VRs to obtain output of standard output.
400	AUX IN	Same as input ①			SVR R199	SVR R299	Adjust SVRs R199 & R299 until meters on amplifier stand at OVU.
400	AUX IN	100mV ± 18mV	TP-131 231	460mV	Input level VR	Input level VR	Adjust input level VRs to obtain output of standard output.
400	AUX IN	Same as input ①	TP-131 231	460mV	SVR R198	SVR R298	Meter readings should be 0dB at standard output level, at which peak indicator lamps should go on. Adjust SVRs so peak indicator lamps go off when input, decreases by 1dB.
400	AUX IN	Input - 1dB	TP-131 231	460mV	SVR R198	SVR R298	

NOTES.

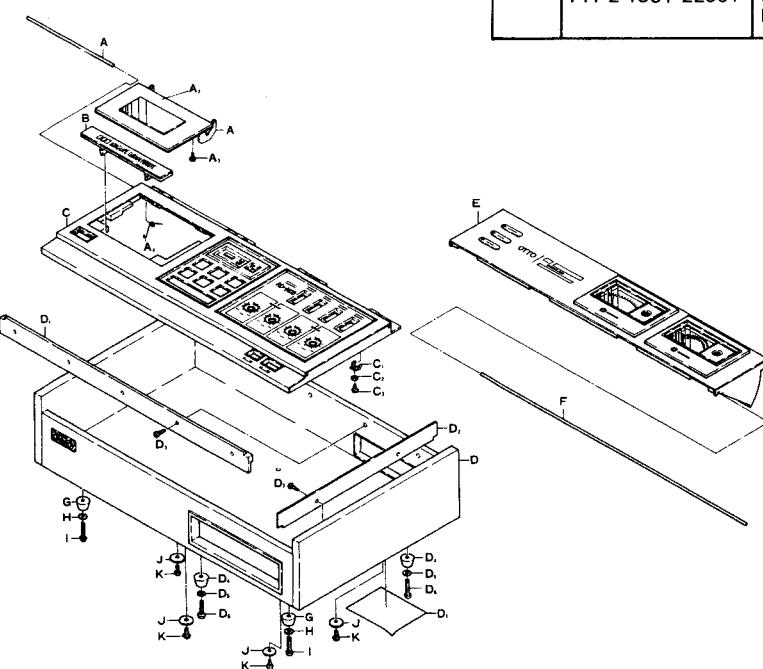
1. Keep at hand test tape, VTVM, CR OSC and tester in making repairs and conducting inspection work.
2. Do not allow grounding current to flow with voltage being applied to base-emitter circuit of Q601 (2SC1383), when conducting inspection or making repairs. Otherwise, transistor will be destroyed.
3. Discharge capacitors prior to parts replacement.



EXAMPLE: Regulate VR so that output is 79mV to attenuate 22 dB at input of 1V.  
 Regulate VR so that output is 7.9mV to attenuate 42 dB at input of 1V.  
 Regulate VR so that output is 2.5mV to attenuate 52 dB at input of 1V.

## PARTS LIST

Key. No.	Part No.	Description	Q'ty	Key. No.	Part No.	Description	Q'ty
<b>PACKING</b>							
	141-6-132T-51603	Individual carton	1		141-2-851T-70600	Spring coil, Record mechanism	1
	141-6-313T-01700	Styrol filler, Side pad	2		141-2-488T-00200	Lock pin, Solenoide couple	1
	141-6-479T-01900	Label, DOLBY	1		141-2-743T-03300	Arm, Solenoide mtg.	1
	141-6-455T-01101	Serial number plate	2		141-2-371T-05801	Bracket, Transformer mtg.	1
	141-6-411T-56401	Instruction booklet	1		141-2-143T-51400	Marking plate, Rear jack base	1
	141-6-472T-05604	Caution label, Power supply cord	1		147-2-411T-00600	Plate nut, Insert chassis	2
	141-6-415T-07101	Notice, Head slide protector	1		141-2-751T-74300	Shaft, REC lever fulcrum	1
	141-6-316T-60700	Pad, Remote control unit	1		141-0-741T-11400	Lever assembly	1
	141-117-00	Remote control unit RB9600	1		141-2-464T-13100	Fixer, Panel up couple	1
		Polyethylene bag 100 x 200mm,	4		141-0-731T-07400	Slide assembly, Panel up lock	1
		Remote control unit & Cord			141-2-741T-63800	Lever, Slide (T-074) mtg.	1
		Polyethylene bag 500 x 700mm, Set	1		141-2-488T-00400	Lock pin, Lever (T-638) mtg.	1
	141-6-415T-11100	Notice, Swedish	1		141-2-751T-66900	Adhesive tape 5 x 10 x 5mm,	1
	141-6-421T-27600	Schematic diagram	1		141-2-614T-04400	Slide (T-074) to Lever (T-638)	1
	141-6-415T-06700	Notice, SEMKO	1		141-2-851T-71100	Shaft, Chassis (T-143) fixed	1
	147-2-196T-00300	Cleaner stick	1		141-2-851T-76400	Lever, Panel up lock	1
					141-2-377T-12500	Spring coil, Lever (T-044)	1
					147-2-411T-00601	lock operation	
						Spring coil, Shaft (T-623) insert	1
						Bracket, VR mtg.	1
						Plate nut, Bracket (T-125)	1
						P.C.B. insert	
						Special washer, VR mtg. to	4
						bracket (T-125) P.C.B.	
D	141-0-111T-05403	Cabinet assembly	1		141-2-365T-22200	Bracket, DOLBY CAL SW mtg.	1
C	141-0-121T-02000	Deck panel assembly, Control	1		141-2-164T-09100	Slide knob, CAL OSC SW	1
A	141-0-124T-00900	Cassette compartment lid assembly	1		141-2-143T-51300	Marking plate, Front jack base	1
B	141-0-134T-01201	Head cover assembly	1		147-2-411T-00601	Plate nut, Marking plate (T-513)	1
E	141-0-121T-01801	Deck panel assembly, Meter	1		141-2-322T-21100	Shield plate	1
G	123-2-174R-10700	Stand, Rubber leg	2		141-2-322T-21200	Shield plate	1
J	141-2-457T-05300	Special washer, Cabinet fixer	4		141-2-322T-21300	Shield plate	1
F	141-2-751T-61900	Shaft, Meter deck panels' fulcrum	1		141-2-322T-21500	Shield plate	1
	141-2-163T-17500	Rotary knob, DOLBY CAL.	2		141-2-411T-05900	Plate nut, REC spring SW mtg.	1
	141-2-851T-76300	Spring coil, (T-175) mtg.	2		141-0-741T-12600	Lever assembly, Rec mechanism	1
	141-2-163T-17100	Rotary knob, DOLBY CAL.	2		141-2-322T-28400	Shield plate, PT	1
	141-0-163T-05600	Rotary knob assembly	4		141-2-322T-23200	Shield plate, Chassis (T-143) mtg.	1
	141-2-157T-18300	Inlay, PAUSE	1		141-2-311T-14400	Chassis, Relay SW	1
	141-2-157T-18400	Inlay, F. FWD	1		141-2-851T-70800	Spring coil	6
	141-2-157T-18500	Inlay, AUTO REPEAT PLAY	1		141-2-445T-13400	Rubber cushion, PL support	6
	141-2-157T-18600	Inlay, REC	1		141-2-751T-62100	Shaft, Push button (T-178) mtg.	2
	141-2-157T-18700	Inlay, PLAY	1		141-2-161T-17800	Push button	6
	141-2-157T-18800	Inlay, REWIND	1		141-2-135T-41200	Cover, voltage select	1
		Fiber washer 4 x 13 x 0.5mm, chassis	1		141-2-741T-80600	Fiber washer 3 x 8 x 0.5mm PCB mtg.	1
					141-2-569T-00900	Lever	1
					141-6-476T-03100	Guide shaft	1
					141-6-476T-04200	Fiber heat 8 x 15 x 1 mm, Chassis mtg.	1
					141-2-135T-22001	Indication label	2
						Indication label	1
						Cover, Meter adjust hole	2
						Felt 10 x 10 x 10mm, Shield plate mtg.	1



## PARTS LIST

Key. No.	Part No.	Description	Q'ty	Key. No.	Part No.	Description	Q'ty
CHASSIS				ELECTRICAL PARTS			
	141-0-161T-01700	Push button assembly, stop	1		4-235T-21800	Socket 3P, Panel ~ Power supply P.C.B.	1
	141-2-741T-58400	Lever	1		141-2-472T-01200	Lug, Lead fixer	1
	141-2-851T-70700	Spring coil	1		4-511T-04072	Meter, VU	2
	141-2-751T-62000	Shaft, Push button (T-017) mtg.	1		4-235R-15000	Socket, Operation P.C.B. ~ REC solenoid (-)	3
	123-2-445R-11000	Rubber cushion, Chassis (T-144) insert	1			AUDIO Rewind SW	
	141-0-162T-02200	Lever knob assembly, Rec mode, Dolby N.R, Auto return	3			REC solenoid (+)	
	141-2-741T-58600	Lever	4		4-235T-27400	Socket	1
		Rubber cushion 4 x 10 x 1mm, Lever SW	8		141-2-472T-01200	Lug, Lead fixer	2
	141-2-161T-17600	Push button, POWER SW	1		141-2-472T-02300	Lug, VR earth	4
	141-2-377T-12400	Bracket, Chassis (T-143) fixer	1		123-2-474R-00200	Tip plug, Auto repeat PL relay	1
		Rubber cushion 8 x 10 x 10mm, P.C.B. and Bracket (T-124) mtg.	1		141-2-472T-01200	Lug, Bias lead fixer	1
	141-2-377T-12600	Bracket, Power supply P.C.B. fixer	1		141-2-464T-08700	Fixer, Lead	2
	141-2-161T-18200	Push button, MEMORY SW	1		4-235T-21900	Socket, MAIN ~ Operating P.C.B. (2.1 ~ 5) 5P	1
	141-2-161T-18000	Push button, EJECT	1		4-235T-21900	Socket, MAIN ~ Power supply (3-1 ~ 5) 5P	1
	141-2-367T-25300	Bracket, Remote control socket mtg.	1		141-2-472T-02200	Lug, Shield plate fixer	1
	141-2-143T-57100	Marking plate, Voltage select socket	1			Adhesive tape 12 x 18mm, Shield plate	5
	141-2-373T-04900	Bracket, Meter fixer	1			Adhesive tape 12 x 22mm, Shield plate	2
	141-2-741T-63900	Lever, Lever lock (614T-044) take off	1			Adhesive tape 12 x 10mm, Shield plate SW	3
	141-2-462T-28300	Boss, Lever (T-639) mtg.	1			Adhesive tape 12 x 20mm, Shield plate	1
	141-2-445T-13500	Rubber cushion, Meter (T-04072)	2		123-2-368R-12900	Heat sink, 2SC1383	1
	141-2-374T-08000	Bracket, PL (T-048) mtg.	1		123-2-474R-00200	Chip plug	2
	141-2-681T-01901	Sleeve, Damper	1				
	141-2-751T-40700	Shaft, Damper	1				
		Spring pin 2 x 10mm, Damper mtg.	1				
	141-2-315T-10700	Rainforcement, Damper stopper	1				
	141-2-488T-00200	Lock pin, Damper mtg.	1				
	141-2-851T-76100	Spring coil, Panel up	1				
	141-2-851T-76200	Spring coil, Panel up	1				
	141-2-464T-13600	Fixer, Spring coil (T-762) mtg.	1				
	141-2-851T-53400	Spring coil, Lever (T-639)	1				
	141-2-445T-08700	Rubber cushion, PL mtg.	1				
	141-0-162T-02201	Lever knob Assy, Tape select	1				
	141-0-161T-01600	Push button assy, panel up	1				
	141-2-751T-62300	Shaft, panel up connection rod	1				
ELECTRICAL PARTS				PRINTED CIRCUIT BOARD ASSY (OPERATION)			
T501	4-251T-35100	Power transformer	1		4-226T-66191	Printed circuit board assembly, OPERATION	1
	4-264T-04400	Magnetic coil, REC	1		SW701 ~ 707	Special switch, Operation	7
	4-231T-40800	Power switch	1			Special switch, Muting	1
	4-231T-11903	Special switch, REC solenoid	2			Relay	4
	4-231T-53600	Switch, voltage select	1		RL701,704, 705,706	4-612T-05700	Lamp 14V 30mA L=150mm
	123-2-464R-14400	Fixer, Power supply cord	1			4-226T-07300	Plug 12 pin, Mechanism ~ Operating P.C.B.
	123-2-474R-00200	Tip plug, PT 6V	1			4-236T-06100	Plug 5 pin, Operating P.C.B. ~ MAIN P.C.B.
	141-2-464T-07400	Fixer, AC ound	1		PL702,703	4-612T-05772	Lamp 14V 30mA L=90mm
	141-2-464T-08700	Fixer, Wiring disposition	1		PL704,706	4-612T-05771	Lamp 14V 30mA L=130mm
	123-2-474R-00200	Tip plug, REC solenoid	2		RL702,703	4-232T-04100	Relay
	4-243T-03100	Lead, RCA shield wire	4			4-232T-04300 or 4-232T-04171	H.F. choke coil 4.7mH
	4-231T-03101 or	Diode 1N4002, REC solenoid	2		Q701	4-253T-01019	Transistor 2SC945Q
D608,609	123-2-382R-00600	Terminal, REC. solenoid, Solenoid SW	3		Q702,703,705		
	141-2-472T-01200	Lug, AC lead fixer	1		Q707		
	123-2-472R-00600	Lug, R/P head lead fixer	1		Q704,708		
	123-2-472R-00400	Lug, Power SW earth	1		Q710,714		
	4-241T-08300	Lug, Power SW earth	1		SCR701		
	141-2-472T-01200	Cassette tape C-12 type	1		D701,702, 703,704, 705,706, 707,708, 709,710, 711,712, 713		
		Lug, REC solenoid & SW lead fixer	1				
	4-243T-77172	Power supply cord	1				
	4-234T-03600	Fuse 2A SEMCO	1				
	4-234T-01900	Fuse 0.8A SEMCO	2				
	141-2-383T-02001	Fuse holder 3P	1				
	123-2-472R-00600	Lug, PT case earth, Power SW shield earth	2				
	123-2-472R-00400	Lug, REC solenoid earth	1				
PL003	4-612R-12484	Lamp, DOLBY 6V 30mA	1				
PL004,005	4-612R-10172	Lamp, Peak indicator 6V 30mA L=500mm	2				
PL001	4-612R-12484	Lamp, MEMORY 6V 30mA	1				
PL002	4-612R-12484	Lamp, CrO <sub>2</sub> 6V 30mA	1				
	4-235T-22100	Socket 8P, Panel ~ MAIN	1				
				D732		Diode RD8.2E(B, A)	1

NOTES: 1. Parts orders must contain Model Number, Part Number and Description.  
 2. Unless otherwise noted, component parts indicated by parentheses in the column Q'ty are not available.  
 3. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

## PARTS LIST

Key. No.	Part No.	Description	Q'ty	Key. No.	Part No.	Description	Q'ty				
PRINTED CIRCUIT BOARD ASSY (OPERATION)											
CAPACITORS											
C708		Electrolytic 0.22 $\mu$ F 16V	1	R512		Carbon 1.8K ohm	$\pm 10\%$ , 1/4W				
C716		Electrolytic 0.47 $\mu$ F 16V	1	R509		Carbon 3.9K ohm	$\pm 10\%$ , 1/4W				
C706,710		Electrolytic 1 $\mu$ F 16V	2	R342,442		Carbon 4.7K ohm	$\pm 10\%$ , 1/4W				
C705,707		Electrolytic 4.7 $\mu$ F 16V	2	R127,227		Carbon 6.8K ohm	$\pm 5\%$ , 1/4W				
C700,703		Electrolytic 10 $\mu$ F 16V	2	R191,291, 507,516		Carbon 15K ohm	$\pm 10\%$ , 1/4W				
C704		Electrolytic 22 $\mu$ F 16V	1	R128,228		Carbon 18K ohm	$\pm 5\%$ , 1/4W				
C715		Electrolytic 22 $\mu$ F 25V	1	R506,513		Carbon 18K ohm	$\pm 10\%$ , 1/4W				
C701		Electrolytic 47 $\mu$ F 25V	1	R514		Carbon 22K ohm	$\pm 10\%$ , 1/4W				
C702		Electrolytic 100 $\mu$ F 16V	1	R508		Carbon 47K ohm	$\pm 10\%$ , 1/4W				
RESISTORS											
R754		Carbon 33 ohm $\pm 10\%$ , 1/4W	1	R129,229, 500,501		Carbon 68K ohm	$\pm 10\%$ , 1/4W				
R751		Carbon 150 ohm $\pm 10\%$ , 1/4W	1	R196,296		Carbon 100K ohm	$\pm 10\%$ , 1/4W				
R755		Carbon 220 ohm $\pm 10\%$ , 1/4W	1	PRINTED CIRCUIT BOARD ASSY (VR)							
R720,725,752		Carbon 1K ohm $\pm 10\%$ , 1/4W	3	R512		Carbon 1.8K ohm	$\pm 10\%$ , 1/4W				
R700,702		Carbon 1.5K ohm $\pm 10\%$ , 1/4W	2	R509		Carbon 3.9K ohm	$\pm 10\%$ , 1/4W				
R710		Carbon 1.8K ohm $\pm 10\%$ , 1/4W	1	R342,442		Carbon 4.7K ohm	$\pm 10\%$ , 1/4W				
R708,709, 715		Carbon 2.2K ohm $\pm 10\%$ , 1/4W	3	R127,227		Carbon 6.8K ohm	$\pm 5\%$ , 1/4W				
R750,756		Carbon 2.7K ohm $\pm 10\%$ , 1/4W	2	R191,291, 507,516		Carbon 15K ohm	$\pm 10\%$ , 1/4W				
R705		Carbon 3.9K ohm $\pm 10\%$ , 1/4W	1	R128,228		Carbon 18K ohm	$\pm 5\%$ , 1/4W				
R723,724		Carbon 5.6K ohm $\pm 10\%$ , 1/4W	2	R506,513		Carbon 18K ohm	$\pm 10\%$ , 1/4W				
R729		Carbon 6.8K ohm $\pm 10\%$ , 1/4W	1	R514		Carbon 22K ohm	$\pm 10\%$ , 1/4W				
R730		Carbon 8.2K ohm $\pm 10\%$ , 1/4W	1	R508		Carbon 47K ohm	$\pm 10\%$ , 1/4W				
R704,706, 722,728, 740		Carbon 10K ohm $\pm 10\%$ , 1/4W	5	R129,229, 500,501		Carbon 68K ohm	$\pm 10\%$ , 1/4W				
R714		Carbon 12K ohm $\pm 10\%$ , 1/4W	1	R196,296		Carbon 100K ohm	$\pm 10\%$ , 1/4W				
R716,721		Carbon 15K ohm $\pm 10\%$ , 1/4W	2	PRINTED CIRCUIT BOARD ASSY (MAIN AMP.)							
R717,727		Carbon 33K ohm $\pm 10\%$ , 1/4W	2	R301,302, 401,402	4-226T-60891	Printed circuit board assembly, MAIN	1				
R703,719		Carbon 47K ohm $\pm 10\%$ , 1/4W	2	R4-222T-34200	Variable resistor 20KB $\times 2$	2					
R707		Carbon 100K ohm $\pm 10\%$ , 1/4W	1	R117,217	4-222R-60900	Potentiometer 50KB, Potentiometer 2KB,	2				
R711,712, 713		Carbon 120K ohm $\pm 10\%$ , 1/4W	3	R199	4-222T-03100	Left meter	1				
R718,726		Carbon 270K ohm $\pm 10\%$ , 1/4W	2	R198	4-222R-61100	Potentiometer 5KB, Left peak ind.	1				
PRINTED CIRCUIT BOARD ASSY (VR)											
R122,222	4-226T-60999	Printed circuit board assembly, VR	1	R163,263	4-222T-32200	Potentiometer 500B, DOLBY gain	2				
R193,293	4-222T-34000	Variable resistor 50KA, Record VR	2	R158,258	4-222T-39475	Potentiometer 10KB, DOLBY ATT.	2				
	4-222T-33900	Variable resistor 10KA, Line out VR	2	R104,204	4-222T-34800	Variable resistor 200KB, Frequency response (Playback) high	2				
R299	4-222T-03100	Variable resistor 2KB, Right meter	1	R308,408	4-222T-29800	Variable resistor 10KB, Bias	2				
R298	4-222R-61100	Variable resistor 5KB, Right Peak ind.	1	R322,422	4-222T-29871	Variable resistor 20KB, CrO <sub>2</sub> frequency response (Record)	2				
S7	4-231T-42000	Switch, DOLBY 400Hz OSC	1	R309,409	4-222R-61500	Variable resistor 10KB, Bias	2				
	4-237T-00100	Terminal, TP	2	L101,201	4-255R-10400	Choke coil 5.6mH, IF	2				
Q116,216		Transistor 2SC945P, Q	2	L102,202	4-252T-03200	Choke coil 10mH	2				
Q117,217, 501		Transistor 2SC945P	3	L103,203	4-252T-03100	Choke coil 12mH	2				
CAPACITORS				L104,204	4-252T-03300	Choke coil 6.8mH	2				
C113,213, 114,214, 116,216		Electrolytic 4.7 $\mu$ F 16V	6	L131,231	4-252T-02900	L.F. choke coil 36mH, DOLBY	2				
C512		Electrolytic 10 $\mu$ F 16V	1	L132,232	4-252T-02800	L.H. choke coil 23mH, 19kHz trap DOLBY	2				
C117,217		Electrolytic 33 $\mu$ F 16V	2	4-235T-25000	Socket, MIC	2					
C511		Electrolytic 100 $\mu$ F 6.3V	1	4-235T-25100	Socket, Headphone	1					
C500		Mylar 0.0022 $\mu$ F $\pm 20\%$ 50WV	1	4-235T-23700	Socket, LINE IN, LINE OUT	4					
C507,508, 509		Mylar 0.01 $\mu$ F $\pm 10\%$ 50WV	3	4-235T-23100	Socket, DIN	1					
C506		Mylar 0.039 or 0.04 $\mu$ F $\pm 20\%$ 50WV	1	4-231T-40100	Slide switch, Auto return	1					
RESISTORS				4-231T-11302	Slide switch, R/P	2					
R192,292		Carbon 100 ohm $\pm 5\%$ , 1/4W	2	4-231T-40200	Slide switch, DOLBY	1					
R194,294		Carbon 100 ohm $\pm 10\%$ , 1/4W	2	4-231T-40171	Slide switch, Line/MIC DIN	1					
R329,429		Carbon 180 ohm $\pm 10\%$ , 1/4W	2	4-231T-16000	Slide switch, CrO <sub>2</sub> /LH/Normal	1					
R197,297		Carbon 820 ohm $\pm 10\%$ , 1/4W	2	4-235R-15000	Terminal, Lead relay	1					
				4-236T-06100	Plug 5 pin, Mechanism ~ MAIN	1					
				4-236T-06000	Plug 8 pin, Panel ~ MAIN	1					
				Q109,209	FET 2SK30D	2					
				Q101,201	Transistor 2SC644T, S	2					
				Q102,202, 103,203	Transistor 2SC644S	4					
				Q104,204	Transistor 2SC945R	2					
				Q106,206	Transistor 2SA628E	2					
				Q107,207	Transistor 2SC644R	2					
				Q108,208	Transistor 2SC945Q	2					
				Q111,211	Transistor 2SC945R	2					
				Q112,212	Transistor 2SA628E	2					
				Q113,213	Transistor 2SC945R, Q	2					
				Q114,214	Transistor 2SD227W, S	2					
				Q118,218, 119,219, 121,221	Transistor 2SC945P	6					
				D101,104, 204,505	Diode 1N60	4					
				D102,103, 106,202, 203,206	Diode DS442	6					
				D107,207, 108,208	Diode 1N60	4					
				D109,209, 111,211	Diode DS442	4					

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## PARTS LIST

Key. No.	Part No.	Description	Q'ty	Key. No.	Part No.	Description	Q'ty
PRINTED CIRCUIT BOARD ASSY (MAIN AMP.)				PRINTED CIRCUIT BOARD ASSY (MAIN AMP.)			
D105		Diode VD1211 B1	1	R321,421		Carbon 1.5K ohm	$\pm 10\%$ , 1/4W
D105 (1)		Diode 1S1211	1	R311,411		Carbon 1.8K ohm	$\pm 10\%$ , 1/4W
		VD1212 Gr	1	R121,221,		Carbon 2.2K ohm	$\pm 10\%$ , 1/4W
D501		1S1210 W	1	126,226,			
		Diode RD8,2E	1	141,241,			
				517			
				R176,276		Carbon 2.7K ohm	$\pm 5\%$ , 1/4W
				R154,254		Carbon 3.3K ohm	$\pm 2\%$ , 1/4W
C153,253		CAPACITORS		R133,233		Carbon 3.3K ohm	$\pm 5\%$ , 1/4W
C118,218,		Electrolytic 0.33 $\mu$ F 10W	2	R102,202,		Carbon 3.3K ohm	$\pm 10\%$ , 1/4W
505(1)		Electrolytic 1 $\mu$ F 16 ~ 50WV	3	501			
C504		Electrolytic 1 $\mu$ F 16 or 25WV	1	R151,251		Carbon 2.7K ohm	$\pm 10\%$ , 1/4W
C504(1)		Electrolytic 2.2 $\mu$ F 16WV	1	R103,203		Carbon 3.9K ohm	$\pm 10\%$ , 1/4W
C128,228		Electrolytic 3.3 $\mu$ F 25WV	2	R412		Carbon 4K ohm	$\pm 10\%$ , 1/4W
C101,201,		Electrolytic 4.7 $\mu$ F 16WV	12	R116,216,		Carbon 4.7K ohm	$\pm 10\%$ , 1/4W
106,206,				312,341,			
136,236,				441,518			
121,221,				R111,211,		Carbon 5.6K ohm	$\pm 10\%$ , 1/4W
119,219,				303,403			
111,211				R137,237,		Carbon 6.8K ohm	$\pm 10\%$ , 1/4W
C122,222,		Electrolytic 10 $\mu$ F 10WV	6	159			
148,248,				R147,247,		Carbon 8.2K ohm	$\pm 5\%$ , 1/4W
139,239		Electrolytic 10 $\mu$ F 16WV	8	164,264			
C131,231,				R167,267,		Carbon 8.2K ohm	$\pm 10\%$ , 1/4W
137,237,				114,214,			
138,238,				168,268			
154,254				304,404			
C505		Electrolytic 22 $\mu$ F 16WV	1	307,407			
C144,244,		Electrolytic 33 $\mu$ F 10WV	4	R106,206,		Carbon 10K ohm	$\pm 10\%$ , 1/4W
147,247				166,266,			
C107,207		Electrolytic 100 $\mu$ F 6.3V	2	330,430			
C501		Electrolytic 100 $\mu$ F 10WV	1	R162,262,		Carbon 15K ohm	$\pm 10\%$ , 1/4W
C502		Electrolytic 100 $\mu$ F 16WV	1	178,278,			
C503		Electrolytic 470 $\mu$ F 16WV	1	327,427			
C102,202		Mylar 470pF $\pm 10\%$ 50WV	2	R316,416		Carbon 18K ohm	$\pm 10\%$ , 1/4W
C129,229,		Mylar 680pF $\pm 20\%$ 50WV	4	R113,213,		Carbon 22K ohm	$\pm 10\%$ , 1/4W
108,208				149,249			
C109,209		Mylar 0.0075 $\mu$ F $\pm 10\%$ 50WV	2	R146,246		Carbon 27K ohm	$\pm 10\%$ , 1/4W
C126,226		Mylar 0.0082 $\mu$ F $\pm 10\%$ 50WV	2	R143,243,		Carbon 33K ohm	$\pm 10\%$ , 1/4W
C123,223		Mylar 0.01 $\mu$ F $\pm 10\%$ 50WV	2	152,252,			
C124,224		Mylar 0.02 $\mu$ F $\pm 10\%$ 50WV	2	169,269			
C142,242		Mylar 0.027 $\mu$ F $\pm 5\%$ 50WV	2	R153,253		Carbon 39K ohm	$\pm 5\%$ , 1/4W
C127,227		Mylar 0.027 $\mu$ F $\pm 20\%$ 50WV	2	R118,218,		Carbon 47K ohm	$\pm 10\%$ , 1/4W
C151,251		Mylar 0.1 $\mu$ F $\pm 5\%$ 50WV	2	132,232,			
C152,252		Mylar 0.1 $\mu$ F $\pm 10\%$ 50WV	2	136,236,			
C146,246,		Mylar 0.1 $\mu$ F $\pm 20\%$ 50WV	5	172,272,			
149,249,				331,431			
510				R101,201,		Carbon 56K ohm	$\pm 10\%$ , 1/4W
C104,204		Ceramic 25pF $\pm 10\%$ 50WV	2	317,417			
C103,203		Ceramic 100pF $\pm 10\%$ 50WV	2	R314,414,		Carbon 82K ohm	$\pm 10\%$ , 1/4W
C112,212		Ceramic 500pF $\pm 10\%$ 50WV	2	324,424			
C132,232		Styrol 3900pF $\pm 5\%$ 50 ~ 125WV	2	R105,205		Carbon 100K ohm	$\pm 10\%$ , 1/4W
C133,233		Styrol 3000pF $\pm 5\%$ 50 ~ 125WV	2	119,219			
C134,234		Styrol 2200pF $\pm 5\%$ 50 ~ 125WV	2	R171,271		Carbon 120K ohm	$\pm 10\%$ , 1/4W
C141,241		Styrol 5600pF $\pm 2.5$ or $\pm 5\%$ 50 ~ 125WV	2	R144,244,		Carbon 150K ohm	$\pm 5\%$ , 1/4W
C143,243		Styrol 4700pF $\pm 2.5$ or $\pm 5\%$ 50 ~ 125WV	2	148,248			
				R142,242		Carbon 180K ohm	$\pm 5\%$ , 1/4W
				R108,208,		Carbon 220K ohm	$\pm 10\%$ , 1/4W
				156,256,			
				313,413			
				R179,279		Carbon 270K ohm	$\pm 10\%$ , 1/4W
				181,281			
				R131,231,		Carbon 470K ohm	$\pm 10\%$ , 1/4W
				326,426			
				R161,261		Carbon 680K ohm	$\pm 10\%$ , 1/4W
				R112,212		Carbon 1M ohm	$\pm 10\%$ , 1/4W
				R110,210		Carbon 3.9M ohm	$\pm 10\%$ , 1/4W
PRINTED CIRCUIT BOARD ASSY (POWER)							
R123,223,	505	Carbon 10 ohm	$\pm 10\%$ , 1/4W	4-226T-610992		Printed circuit board assembly, POWER	1
R174,274,	318,418	Carbon 33 ohm	$\pm 10\%$ , 1/4W	4-222T-34100		Variable resistor 100KB, Bias adjust	2
R177,277		Carbon 47 ohm	$\pm 10\%$ , 1/4W	L501,502		VHF coil	2
R182,282,	319,419	Carbon 100 ohm	$\pm 10\%$ , 1/4W	L503		OSC coil	1
R138,238,	328,428	Carbon 120 ohm	$\pm 10\%$ , 1/4W	L106,206		Choke coil 15mH	2
R107,207,	504	Carbon 220 ohm	$\pm 10\%$ , 1/4W	4-236T-06100		Plug 5 pin, POWER ~ MAIN	1
R157		Carbon 270 ohm	$\pm 10\%$ , 1/4W				
R323,423		Carbon 470 ohm	$\pm 10\%$ , 1/4W				
R134,234,	139,239	Carbon 560 ohm	$\pm 10\%$ , 1/4W				
R109,209		Carbon 680 ohm	$\pm 10\%$ , 1/4W				
R173,273		Carbon 1K ohm	$\pm 5\%$ , 1/4W				
R503		Carbon 1K ohm	$\pm 10\%$ , 1/4W				

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## PARTS LIST

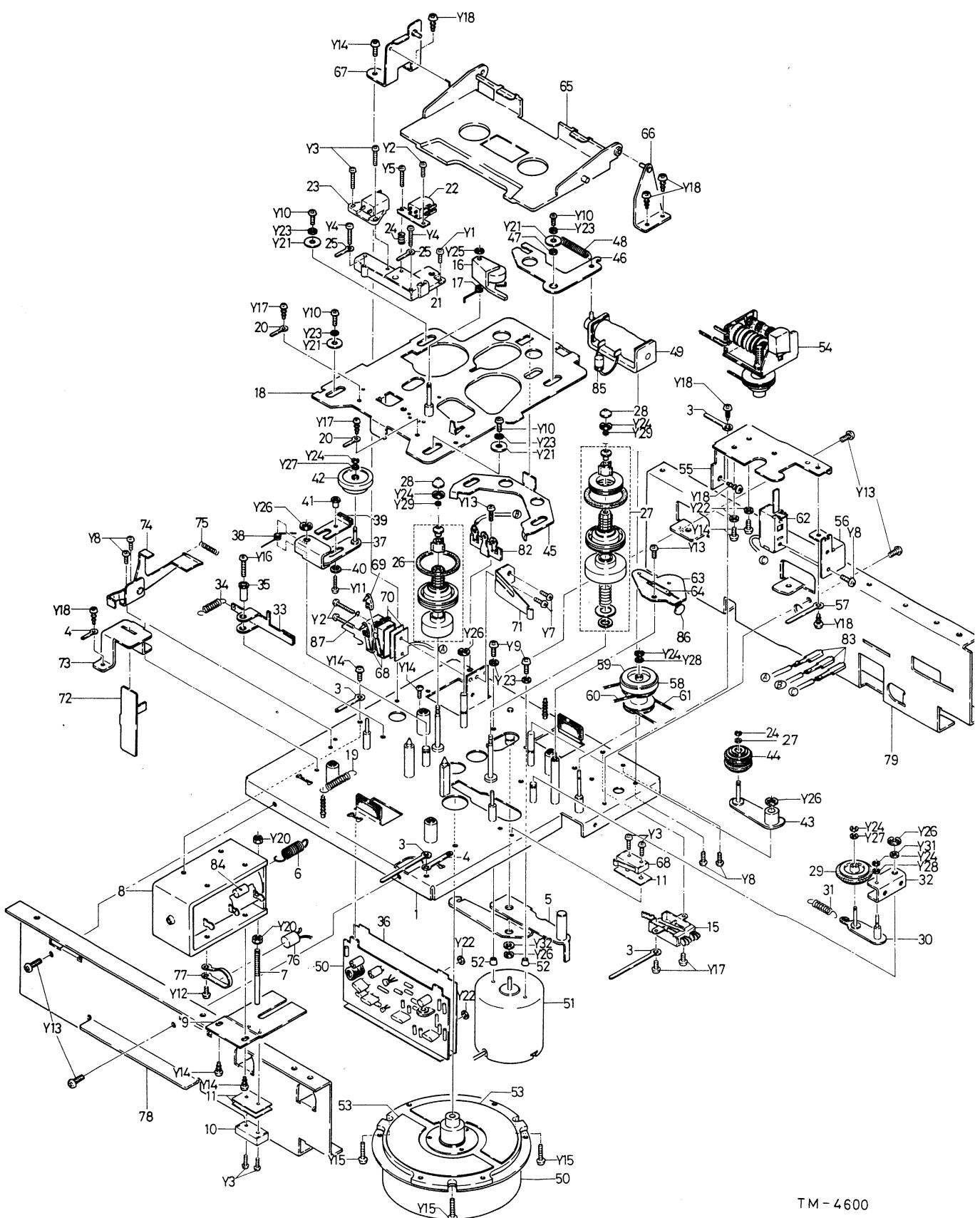
Key. No.	Part No.	Description	Q'ty	Key. No.	Part No.	Description	Q'ty
<b>PRINTED CIRCUIT BOARD ASSY (POWER)</b>							
TP601,602	4-236T-06400 123-2-474R-00200	Plug 3 pin, POWER ~ Panel Chip plug, Mechanism power supply, Power P.C.B. ~ Mechanism memory P.L.	1 3	7	141-2-569T-00300	Guide shaft, Spring hook	1
Q601	123-2-382R-00291 123-2-474R-00200	Terminal Chip plug, C620 ~ REC solenoid	2 1	8	4-264T-04700	Solenoid, Play	1
Q502,503		Transistor 2SC1383R	1	9	141-2-365T-22500	Bracket, Micro SW mtg.	
D601,602		Transistor 2SC945P	2	10	4-231T-11902	Switch, Solenoid coil changer	1
D604,605, 606,607		Diode 1N4002	2	11	141-2-327T-07600	Insulator, Micro SW	4
D603		Diode 1N4001	4	12	141-2-751T-67900	Shaft, Muting SW operating	1
D610,611		Diode WZ 192	1	13	4-231T-11903	Switch, Muting	1
		Diode 1N4002	2	14	141-2-365T-25000	Bracket, Switch mtg.	1
		<b>CAPACITORS</b>		15	4-231T-31171	Switch, Head slide operating (Snap SW)	1
C620		Electrolytic 470μF 16WV	1	16	141-0-545T-01400	Pinch roller lever assembly	1
C610		Electrolytic 100μF 25WV	1	17	141-2-852T-18000	Spring wire, Pinch lever pressure	1
C607		Electrolytic 1000μF 25WV	1	18	141-0-731T-08500	Slide assembly, Head	1
C604		Electrolytic 1000μF 35WV	1	19	141-2-851T-72600	Spring coil, Slide returning	1
C605,606		Electrolytic Block-470 + 1000μF 25WV	1	20	123-2-472R-00600	Lug, Head slide	1
C613		Mylar 0.01μF ±20% 50WV	1	21	141-2-375T-05900	Bracket, Head mtg.	1
C522		Mylar 0.033μF ±20% 50WV	1	22	4-242T-15900	R/P head	1
C193,293		Ceramic 100pF ±10% 50WV	2	23	4-242T-16800	E head	1
C191,291		Ceramic 180pF ±5% 50WV	2	24	141-2-851T-58400	Spring coil, Head alignment adjust	1
C601,602, 603		Ceramic 0.01μF +100 -0%	3	25	141-2-472T-02200	Lug, R/P head lead alignment	2
C521		500WV		26	141-0-531T-02600	Reel plate assembly, Supply	1
C614,615		Styrol 2200pF ±5% 500WV	1	27	141-0-531T-02700	Reel plate assembly, Take up	1
		Ceramic 0.01μF +80-20% 50WV	2	28	141-2-536T-01500	Reel cap	2
<b>RESISTORS</b>							
R602		Carbon 5.6 ohm ±10%, 1/4W	1	29	141-0-662T-01300	Roller assembly, Take up idlar	1
R524,526		Carbon 4.7 ohm ±10%, 1/4W	2	30	141-0-741T-10400	Lever assembly, Take up idlar	1
R519		Carbon 56 ohm ±10%, 1/4W	1	31	141-2-851T-62700	Spring coil, Idlar pressure	1
R521		Carbon 180 ohm ±10%, 1/4W	1	32	141-2-741T-59300	Lever, Idlar	1
R601		Carbon 390 ohm ±10%, 1/4W	1	33	141-0-741T-10500	Lever assembly, Back tension	1
R523		Carbon 2.2K ohm ±10%, 1/4W	1	34	141-2-851T-72900	Spring coil, Back tension	1
R522		Carbon 22K ohm ±10%, 1/4W	1	35	141-2-751T-63600	Shaft, Back tension	1
<b>SCREW MOUNTING</b>							
		Pan head screw 2 x 18mm	2	36	141-2-322T-22100	Shield plate, Motor	1
		Pan head screw 2.6 x 4mm	4	37	141-0-741T-10700	Lever assembly, F. FWD REW	1
		Pan head screw 2.6 x 6mm	2	38	141-2-852T-24800	Spring wire, REW F. FWD roller pressure	1
		Pan head screw 3 x 6mm	6	39	141-0-731T-07300	Slide assembly, Tension	1
		Pan head screw 3 x 8mm	6	40	141-2-462T-24700	Boss, Slide bearing	1
		Pan head screw 3 x 10mm	1	41	141-2-462T-29800	Boss, Spring hook	1
		Pan head screw 3 x 12mm	2	42	141-2-662T-07901	Roller, F. FWD REW	1
		Pan head screw 3 x 30mm	2	43	141-0-741T-10900	Lever assembly	1
		Pan head screw 3 x 35mm	1	44	141-0-662T-01600	Roller assembly, F. FWD filition	1
		Pan head screw 4 x 8mm	1	45	141-2-731T-26200	Slide, Brake lower	1
		Pan head screw 4 x 10mm	2	46	141-2-741T-59800	Lever, Slide operation	1
		Pan head screw 4 x 16mm	4	47	141-2-683T-03500	Ring	1
		Pan head screw 4 x 20mm	2	48	141-2-851T-73000	Spring coil, Slide pressure	1
		Tapping screw 3 x 6mm	7	49	4-264T-04300	Solenoid, Brake	1
		Tapping screw 3 x 8mm	43	50	4-527T-07600	Brushless motor assembly	1
		Tapping screw 3 x 10mm	9	51	4-527T-07500	Commute motor assembly	1
		Tapping screw 3 x 12mm	2	52	141-2-461T-19600	Pipe, Motor mtg.	2
		Tapping screw 3 x 30mm	2	53	141-2-322T-21700	Shield plate	2
		Tapping screw 3 x 35mm	1	54	141-2-811T-03000	Counter	1
		Tapping screw 4 x 8mm	1	55	141-2-812T-04100	Bracket, Counter mtg.	1
		Tapping screw 4 x 10mm	2	56	141-2-365T-07200	Bracket, Switch mtg.	1
		Tapping screw 4 x 16mm	4	57	141-2-472T-01000	Lug, Motor lead retainer	2
		Tapping screw 4 x 20mm	2	58	141-2-661T-18200	Pulley, Relay	1
		Tapping screw 3 x 6mm	7	59	141-2-765T-01300	Magnet	1
		Tapping screw 3 x 8mm	43	60	141-2-562T-03100	Round belt, Counter drive reel side	1
		Tapping screw 3 x 10mm	9	61	141-2-562T-03400	Round belt, Counter drive counter side	1
		Tapping screw 3 x 12mm	2	62	4-231T-42700	Push switch, Counter	1
		Regular hexagon bolt 3 x 16mm	2	63	4-226T-61400	Printed circuit board, Lead switch mtg	1
		Regular hexagon nut 3mm	8	64	4-231T-41300	Lead switch	1
		Washer 3mm	2	65	141-0-741T-05300	Lever assembly, Cassette up lever	1
		Washer 2mm	2	66	141-0-747T-01000	Bracket lever assembly	1
		Washer 3 x 8 x 0.5mm	1	68	4-231T-11902	Switch, Prevent the miss recording	2
		Washer 3 x 10 x 0.5mm	3	69	141-2-243T-06300	Eject stop	
		Washer 4.5 x 10 x 0.8mm	2	70	141-2-327T-07600	Base, Micro switch operation	2
		External tooth lock washer 4mm	1	71	141-2-853T-32800	Insulator, Micro switch mtg.	4
		External "E" ring 2mm	1	72	141-2-741T-59900	Spring plate, Cassette pressure	1
		External "E" ring 3mm	1	73	141-2-747T-06800	Lever, Button slide	1
				74	141-0-741T-11000	Bracket, Lever mtg.	1
				75	141-2-751T-58600	Lever assembly, Eject	1
				76		Spring coil, Lever returning	1
						Electrical capacitor 470μF 16V, Solenoid noise prevent	1
1	149-085-00 141-0-311T-02200	Mechanism assembly TM-4600 Chassis assembly	1 1	77	147-2-363T-02100	Bracket, Capacitor mtg.	1
3	141-2-472T-01000	Lug, Brake solenoid, Terminal board	4	78	141-2-214T-00900	Bracket, Front flame	1
4	141-2-472R-00600	Chassis upper, Bracket counter		79	141-2-214T-00901 or 141-2-214T-00901	Bracket, Rear flame	1
5	141-0-741T-10301	Lug, Bracket play SW mtg.	1	79	141-2-214T-01000 or 141-2-214T-01001	Bracket Assy, Lever (65) fulcrum right	1
6	141-2-851T-72500	Lever assembly, Slide operation	1				
		Spring coil, Solenoid joint	1				

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 3. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

PARTS LIST

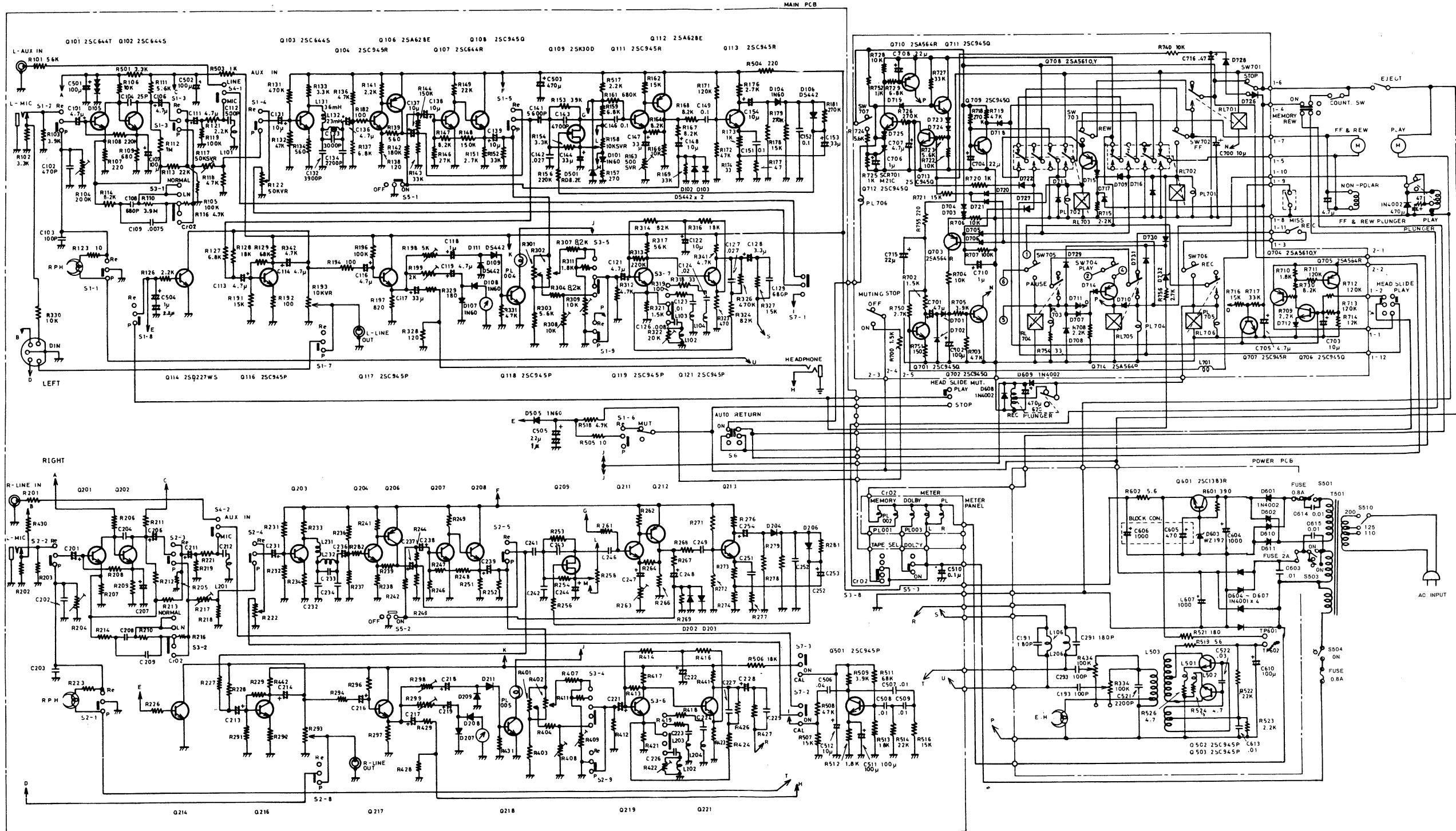
Key No.	Part No.	Description	Q'ty
<b>MECHANISM</b>			
80	4-235T-25200	Socket, Operation part connect	1
81	4-235T-21900	Socket, Mechanism MAIN connect	1
82	4-237T-05800	Terminal board, Lug plate	1
83	123-2-382R-00600	Terminal	3
84	Diode 1N4002	Solenoid noise prevent	1
85	Electrical capacitor 4.7μF 25V,	Solenoid noise prevent	1
86	Ceramic capa. 0.01μF +80-20%50WV	1	
87	Stopper, Micro switch mtg.	1	
<b>MECHANISM SCREW</b>			
Y 1		Pan head screw 2 x 4mm	1
Y 2		Pan head screw 2 x 5mm	1
Y 3		Pan head screw 2 x 8mm	5
Y 4		Pan head screw 2 x 10mm	2
Y 5		Pan head screw 2 x 12mm	1
Y 6		Pan head screw 2 x 15mm	2
Y 7		Pan head screw 2.6 x 3mm	3
Y 8		Pan head screw 2.6 x 4mm	4
Y 9		Pan head screw 2.6 x 7mm	2
Y10		Pan head screw 2.6 x 8mm	4
Y11		Pan head screw 2.6 x 10mm	1
Y12		Pan head screw 3 x 4mm	3
Y13		Pan head screw 3 x 5mm	10
Y14		Pan head screw 3 x 6mm	7
Y15		Pan head screw 3 x 12mm	3
Y17		Tapping screw 3 x 4mm	4
Y18		Tapping screw 3 x 6mm	6
Y20		Regular hexagon nut 3mm	2
Y21		Washer 2.7 x 10 x 0.5mm	4
Y22		Washer 3 x 8 x 0.5mm	4
Y23		Spring washer 2.6mm	6
Y24		External "E" ring 1.5mm	7
Y25		External "E" ring 1.9mm	1
Y26		External "E" ring 3.2mm	5
Y27		Graphite nylon washer 2 x 4 x 0.25mm	4
Y28		Graphite nylon washer 2 x 4 x 0.5mm	2
Y29		Graphite nylon washer 2.5 x 4.7 x 0.13mm	4
Y30		Graphite nylon washer 1.8 x 12 x 0.5mm	1
Y31		Graphite nylon washer 4 x 6.5 x 0.25mm	1
Y32		Graphite nylon washer 5.2 x 8 x 0.5mm	1
Y33		Graphite nylon washer 3 x 5.4 x 0.5mm	1
Y34		Washer 2.5 x 4.4 x 0.4mm	1

EXPLODED VIEW



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TM - 4600  
 1973 7.25 CHK.  
 Oct. 1, 1975 CHK.



Subject to change without notice.

